

**Project Name:** NAR  
**Project Code:** NAR      **Site ID:** B800      **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (QLD)

#### Site Information

<b>Desc. By:</b>	G.D. Hubble	<b>Locality:</b>	Catchment 4.
<b>Date Desc.:</b>	21/09/72	<b>Elevation:</b>	236 metres
<b>Map Ref.:</b>	Sheet No. : 9046 1:100000	<b>Rainfall:</b>	716
<b>Northing/Long.:</b>	150.909444444445	<b>Runoff:</b>	Slow
<b>Easting/Lat.:</b>	-25.694444444445	<b>Drainage:</b>	Moderately well drained

#### Geology

<b>ExposureType:</b>	Undisturbed soil core	<b>Conf. Sub. is Parent. Mat.:</b>	No Data
<b>Geol. Ref.:</b>	PRt	<b>Substrate Material:</b>	Undisturbed soil core, 1 m deep, Unconsolidated material

#### Land Form

<b>Rel/Slope Class:</b>	Undulating rises 9-30m 3-10%	<b>Pattern Type:</b>	Rises
<b>Morph. Type:</b>	No Data	<b>Relief:</b>	30 metres
<b>Elem. Type:</b>	Valley flat	<b>Slope Category:</b>	No Data
<b>Slope:</b>	0 %	<b>Aspect:</b>	No Data

**Surface Soil Condition (dry):** Hardsetting

#### Erosion:

#### Soil Classification

<b>Australian Soil Classification:</b>		<b>Mapping Unit:</b>	N/A
Hypocalcic Mottled-Subnatric Grey Sodosol		<b>Principal Profile Form:</b>	Dy3.43
<b>ASC Confidence:</b>		<b>Great Soil Group:</b>	Solodic soil
All necessary analytical data are available.			

**Site Disturbance:** No effective disturbance other than grazing by hoofed animals

**Vegetation:** Low Strata - Tussock grass, , . \*Species includes - Heteropogon contortus, Aristida species  
 Tall Strata - Tree, 6.01-12m, Mid-dense. \*Species includes - Eucalyptus crebra

#### Surface Coarse Fragments:

#### Profile Morphology

A1	0 - 0.1 m	Very dark grey (10YR3/1-Moist); ; Loam; Weak grade of structure, 5-10 mm, Angular blocky; Moist; Weak consistence; 2-10%, fine gravelly, 2-6mm, angular, Quartz, coarse fragments; Common, very fine (0-1mm) roots; Abrupt change to -
A2	0.1 - 0.16 m	Light brownish grey (10YR6/2-Moist); White (10YR8/2-Dry); ; Sandy loam; Massive grade of structure; Dry; Firm consistence; 2-10%, fine gravelly, 2-6mm, angular, Quartz, coarse fragments; Common, very fine (0-1mm) roots; Sharp change to -
B2	0.16 - 0.2 m	Dark greyish brown (10YR4/2-Moist); ; Heavy clay; Moderate grade of structure, 10-20 mm, Angular blocky; Moderately moist; Very firm consistence; 10-20%, fine gravelly, 2-6mm, angular, Quartz, coarse fragments; Common, very fine (0-1mm) roots;
B2	0.2 - 0.3 m	Dark greyish brown (10YR4/2-Moist); , 10YR44, 10-20% , 0-5mm, Distinct; , 10-20% , 0-5mm, Distinct; Heavy clay; Moderate grade of structure, 10-20 mm, Angular blocky; Moderately moist; Very firm consistence; 10-20%, fine gravelly, 2-6mm, angular, Quartz, coarse fragments; Very few (0 - 2 %), Manganiferous, Medium (2 -6 mm), Nodules; Common, very fine (0-1mm) roots; Diffuse change to -
B2	0.3 - 0.45 m	Dark greyish brown (2.5Y4/2-Moist); , 10YR31, 10-20% , 15-30mm, Distinct; , 10YR54, 10-20% , 15-30mm, Distinct; Heavy clay; Moderate grade of structure, 10-20 mm, Angular blocky; Moderately moist; Firm consistence; 20-50%, fine gravelly, 2-6mm, angular, Gravel, coarse fragments; Few (2 - 10 %), Manganiferous, Medium (2 -6 mm), Nodules; Common, very fine (0-1mm) roots; Diffuse change to -
B2	0.45 - 0.6 m	Dark greyish brown (2.5Y4/2-Moist); , 10YR31, 10-20% , 15-30mm, Distinct; , 10YR56, 10-20% , 15-30mm, Distinct; Heavy clay; Moderate grade of structure, 10-20 mm, Angular blocky; Moderately moist; Firm consistence; 20-50%, fine gravelly, 2-6mm, angular, Gravel, coarse fragments; Few (2 - 10 %), Manganiferous, Medium (2 -6 mm), Nodules; Few, very fine (0-1mm) roots; Diffuse change to -
B2	0.6 - 0.75 m	Dark greyish brown (2.5Y4/2-Moist); , 10YR31, 10-20% , 15-30mm, Distinct; , 10YR56, 10-20% , 15-30mm, Distinct; Medium clay; Moderate grade of structure, 20-50 mm, Angular blocky; Moderately moist; Firm consistence; 20-50%, fine gravelly, 2-6mm, angular, Gravel, coarse fragments; Few (2 - 10 %), Manganiferous, Medium (2 -6 mm), Nodules; Gradual change to -

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B3	0.75 - 0.9 m	Dark greyish brown (2.5Y4/2-Moist); ; Sandy medium clay; Moderate grade of structure, 20-50 mm, Angular blocky; Moderately moist; Firm consistence; 20-50%, fine gravelly, 2-6mm, angular, Gravel, coarse fragments; Very few (0 - 2 %), Manganiferous, Medium (2 -6 mm), Nodules; Very few (0 - 2 %), Calcareous, Coarse (6 - 20 mm), Nodules; Gradual change to -
B3	0.9 - 1.05 m	Dark greyish brown (10YR4/2-Moist); , 10YR44, 10-20% , 0-5mm, Distinct; , 10-20% , 0-5mm, Distinct; Coarse sandy clay loam; Weak grade of structure, 20-50 mm, Angular blocky; Moderately moist; Firm consistence; 10-20%, fine gravelly, 2-6mm, angular, Gravel, coarse fragments; Very few (0 - 2 %), Manganiferous, Medium (2 -6 mm), Soft segregations; Very few (0 - 2 %), Calcareous, Coarse (6 - 20 mm), Nodules; Few, very fine (0-1mm) roots; Gradual change to -
C	1.05 - 1.2 m	Dark greyish brown (10YR4/2-Moist); , 10YR44, 10-20% , 0-5mm, Distinct; , 10-20% , 0-5mm, Distinct; Coarse sandy loam (Heavy); Weak grade of structure, 20-50 mm, Angular blocky; Moderately moist; Firm consistence; 10-20%, fine gravelly, 2-6mm, angular, Gravel, coarse fragments; Very few (0 - 2 %), Manganiferous, Medium (2 -6 mm), Soft segregations; Very few (0 - 2 %), Calcareous, , Nodules; Gradual change to -
C	1.2 - 1.5 m	Brown (7.5YR5/4-Moist); , 10YR42, 10-20% , 0-5mm, Distinct; , 10-20% , 0-5mm, Distinct; Coarse sandy loam (Heavy); Massive grade of structure; Moist; Weak consistence; 20-50%, fine gravelly, 2-6mm, angular, Gravel, coarse fragments; Gradual change to -
C	1.5 - 1.8 m	Yellowish brown (10YR5/4-Moist); ; Coarse sandy loam (Heavy); Massive grade of structure; Moist; Weak consistence; 10-20%, fine gravelly, 2-6mm, angular, Gravel, coarse fragments;

#### **Morphological Notes**

#### **Observation Notes**

PARENT MATERIAL LOCAL ALLUVIUM FROM ADAMELLITE. 10-30CM DEPTH TENDING MACRO COLUMNAR STRUCTURE. GRAVELS THROUGHOUT QUARTWITH SOME FELDSPARS TO 10MM THROUGH B HORIZON. SOLUM OVERLIES BURIED SIIMILAR SOLUM 180-260 CM WEATHERED IN SITU BELOW.

#### **Site Notes**

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Depth m	pH	1:5 EC dS/m	Ca	Exchangeable Mg	Cations K	Na Cmol (+)/kg	Exchangeable Acidity	CEC	ECEC	ESP %
0 - 0.1	5.8H	0.31A	7.6K	3	0.81	0.11	4.9D			
0.1 - 0.16	6.6H	0.058A								
0.16 - 0.2	7H	0.086A								
0.2 - 0.3	7H	0.086A	9.4K	10.4	0.98	1.4	2.5D			
0.3 - 0.45	7.4H	0.118A								
0.45 - 0.6	7.7H	0.156A	6.4K	9.2	0.62	1.7	0.2D			
0.6 - 0.75	8H	0.265A								
0.75 - 0.9	8.9H	0.38A	6.5K	10.4	0.48	2.1	0D			
0.9 - 1.05	8.8H	0.36A								
1.05 - 1.2	8.9H	0.305A								
1.2 - 1.5	8.8H	0.32A								
1.5 - 1.8	9.1H	0.345A								

Depth  m	CaCO3  %	Organic C  %	Avail. P  mg/kg	Total P  %	Total N  %	Total K  %	Bulk Density  Mg/m3	Particle		Size FS  %	Analysis	
								GV	CS		Silt	Clay
0 - 0.1		2.31A	100B	430F	0.174B	3.24B	1.20	4	31C	34	22	10
0.1 - 0.16		0.39A	24B		0.034B		1.60	21	46C	31	16	8
0.16 - 0.2		0.47A	13B		0.058B		1.60	21	29C	24	13	36
0.2 - 0.3		0.96A	17B	300F	0.071B	2.84B	1.60	14	29C	23	10	39
0.3 - 0.45		0.56A			0.041B		1.90	24				
0.45 - 0.6		0.25A	118B		0.024B		2.00	27	37C	27	9	28
0.6 - 0.75							2.00	32				
0.75 - 0.9	0.63C		162B	370F		3.38B	2.00	23	49C	18	5	28
0.9 - 1.05	0.14C						1.90	16	53C	19	5	23
1.05 - 1.2	0.08C						2.00	17	57C	20	7	17
1.2 - 1.5							1.90	26				
1.5 - 1.8	0.28C		304B	470F		3.58B	1.90	14	46C	28	6	19

[illegible]

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**Laboratory Analyses Completed for this profile**

10A_NR	Total element - S(%) - Not recorded
15_NR_CA	Exch. basic cations (Ca++) - meq per 100g of soil - Not recorded
15_NR_H	Hydrogen Cation - meq per 100g of soil - Not recorded
15_NR_K	Exch. basic cations (K++) - meq per 100g of soil - Not recorded
15_NR_MG	Exch. basic cations (Mg++) - meq per 100g of soil - Not recorded
15_NR_NA	Exch. basic cations (Na++) - meq per 100g of soil - Not recorded
17A_NR	Total element - K(%) - Not recorded
19B_NR	Calcium Carbonate (CaCO <sub>3</sub> ) - Not recorded
2A1	Air-dry moisture content
3A1	EC of 1:5 soil/water extract
4_NR	pH of soil - Not recorded
5_NR	Water soluble Chloride - Cl(%) - Not recorded
6A1	Organic carbon - Walkley and Black
7_NR	Total nitrogen (%) - Not recorded
9A_NR	Total element - P(%) - Not recorded
9G_BSES	Available P (mg/kg) - Acid P - 0.005M H <sub>2</sub> SO <sub>4</sub> (BSES)
P10_GRAV	Gravel (%)
P10_NR_C	Clay (%) - Not recorded
P10_NR_CS	Coarse sand (%) - Not recorded
P10_NR_FS	Fine sand (%) - Not recorded
P10_NR_Z	Silt (%) - Not recorded
P3A_NR	Bulk density - Not recorded